

CASE REPORT

“Levofloxacin induced bilateral achilles tendonitis”

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Abstract:

Levofloxacin is widely used in infections especially respiratory. It is generally regarded as safe. Very few side effects are reported by patients. Here we report a case of possible levofloxacin-induced bilateral Achilles tendonitis in a young male to warn users of this possible complication.

Key words: Levofloxacin, Achilles tendonitis

INTRODUCTION:

Levofloxacin is a fluoroquinolone class of antibiotic that is commonly prescribed in community acquired pneumonia, acute bacterial sinusitis, acute bacterial exacerbation of chronic bronchitis, chronic bacterial prostatitis and urinary tract infections. It has many side effects like: nausea, constipation, stomach cramps, dizziness and photosensitivity, among these, one uncommon but important adverse effect of fluoroquinolones are Achilles tendonitis and rupture.

CASE REPORT:

40 years old male, executive in pharmaceutical industry, with no known co-morbid came to medical OPD of Jinnah Medical College Hospital Karachi, with complaints of severe bilateral pain in lower legs; it was so severe that patient could not even stand up easily. Patient gave history of lower respiratory tract infection for 15 days, for which he was taking Levofloxacin 500mg once/day, Fexofenadine 120mg once/day and Paracetamol as required for 10days, prescribed by his general practitioner.

On examination, his pulse rate was 88 beats/min, temp 98.6° F, respiratory rate 16 breaths/min and blood pressure 120/70 mmHg.

Musculoskeletal examination showed severely tender Achilles tendons bilaterally.

Other systemic examination was within normal range.

Among investigations, his blood counts revealed a Hemoglobin of 13.5g/dl, MCV 88fl, Total Leucocyte Count of 9000/mm³, and Platelets 308000/mm³. His Urea was 28mg/dl, Creatinine 0.8, Urine detailed report was normal, Urine and Stool culture and sensitivity showed no growth. His X-ray chest was also normal.

Doppler Ultra sound of legs was normal with no signs of venous thrombosis.

Due to severe pain in his legs, an MRI of legs was performed which showed bilateral swelling of Achilles tendons and nil else of note. (See fig 1)

His ongoing drugs were stopped immediately and patient was advised analgesics, bed rest and also weight bearing restriction. The symptoms improved after three weeks.

Fig 1: MRI scan of foot showing achilles tendon swelling



DISCUSSION:

Treatment with fluoroquinolone class of antibiotics has been increasingly popular. Clinician preference for fluoroquinolones stems from their excellent gastrointestinal absorption, good tissue penetration and broad spectrum activity (1-2) as well as their relative safety of major side effects.

Quinolone-induced tendinopathy and tendon rupture has been described in association with newer quinolones. (3-4) an epidemiologic study from United Kingdom in 2002 calculated the excess risk of Quinolone-induced tendinopathy at 3.2/1000 patients. (5)

The presentation of Quinolone-induced tendonitis and or tendon rupture is characteristically abrupt in onset, with sharp pain occurring spontaneously with walking and/or palpation. The patients usually presents with a positive Thompson sign (absence of plantar flexion on squeezing the calf muscles in prone position) (1, 6). Although most tendon rupture occurs after 2 weeks of treatment with quinolones, but they can occur as early as few hours after the initial dose or up to 6 months after drug therapy. A direct relationship exists between severity and the length of treatment with predilection of Achilles tendon. (7) The injury may be bilateral, partial or complete and is usually located 2-3 cm above a poorly vascularized area which supports an ischemic process is taking place there. (8)

Common risk factors for tendonitis/tendon rupture are concomitant steroid therapy and renal insufficiency. (9). Other risk factors are advanced age, magnesium deficiency, hyperparathyroidism, concomitant diuretic use, peripheral vascular disease, rheumatoid arthritis, diabetes mellitus, and strenuous sports activities. (10) The clinical diagnosis may be confirmed by ultrasound or more precisely by MRI (11).

Treatment consists of immediate discontinuation of Quinolone therapy at the earliest suspicion of tendinopathy. (12) For mild tendonitis, weight-bearing restriction ranges from 2 to 6 weeks. The tendon rupture, whether treated surgically or conservatively, requires casting and prolonged rest. The duration of immobilization varies from 6 weeks to 6 months. (6). It has been noticed that once a patient develops tendonitis secondary to use of levofloxacin it may recur with the same as well as use of other fluoroquinolones (6,13). Hence their reuse is to be avoided.

CONCLUSION:

With the increasing use of levofloxacin and other Quinolone antibiotics, we should expect to encounter a growing number of patients experiencing tendinopathy. Preventive measures include avoiding indiscriminate use of quinolones, recognition of risk factors, and adherence to renal dosing. Moreover, physicians' awareness can further reduce the morbidity associated with Quinolone-induced tendonitis and/or rupture by prompting earlier evaluation and intervention.

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